REMARKS

Claims 6-11 and 19-27 are pending.

In the Office action, the claims were rejected as indefinite because of the phrase "transporting the cake where dryness is prevented." The claims have been amended to clarify that the cake is transported in a container such that dryness is prevented. Support for the amendments may be, found, for example, at pages 74-75 of the pending Specification.

In view of the amendments, application respectfully requests withdrawal of the rejections under 35 U.S.C. § 112, par. 2.

The claims also were rejected under 35 U.S.C. § 103 as unpatentable over the combination of U.S. Patent Nos. 5,240,656 (Scheeres) and 6,114,401 (Doonan). As discussed below, applicant respectfully requests reconsideration.

The Law of Obviousness

A claimed invention is unpatentable due to obviousness if the differences between it and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person of ordinary skill in the art." 35 U.S.C. § 103(a).

As discussed by the Court of Appeals for the Federal Circuit, a proper conclusion of obviousness under 35 U.S.C. § 103 requires that there be some motivation in the prior art that suggests the claimed invention as a whole:

> [A]n Examiner may often find every element of a claimed invention in the prior art. If identification of each claimed element in the prior art were sufficient to negate patentability, very few patents would ever issue. Furthermore, rejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentablity of the claimed invention. Such an approach would be "an illogical and inappropriate process by which to determine patentablity." [Citations omitted] To prevent the use of hindsight based on the

> invention to defeat patentablity of the invention, this court requires the examiner to show motivation to combine the references that create the case of obviousness.

In re Rouffet, 149 F.3d 1350, 1357; 47 USPQ2d 1453, 1457-1458 (Fed. Cir. 1998). As further explained by the Federal Circuit:

> Our case law makes clear that the best defense against hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of a teaching or motivation to combine the prior art references. See Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. "Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." Id.
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> "When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references." In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998) (citing In re Geiger, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987)).

Ecolochem, Inc. v. Southern California Edison Co., 56 USPQ2d 1065, 1072-73 (Fed. Cir. 2000). The showing of the motivation to combine must be "clear and particular." *See, e.g., C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998); *Teleflex, Inc. v. Ficosa North Am. Corp.*, 63 USPQ2d 1374 at 1387 (Fed. Cir. 2002).

The Claimed Subject Matter is Patentable Over the Cited References

In the present case, the "clear and particular" motivation to combine the references so as to obtain the claimed subject matter is lacking.

The Scheeres patent relates to treating contaminated plastics waste. The disclosed techniques involve densifying contaminated plastics waste by causing the waste to pass through a heating zone to produce molten contaminated plastics, and causing the molten contaminated plastics to flow continuously out of the heating zone under the influence of gravity.

The subject matter of the pending claims, however, has nothing to do with plastics. Furthermore, in contrast to the pending claims, the Scheeres patent has nothing to do with crystal ingots and particles from semiconductor wafers.

The Office action relies on the Doonan patent for its disclosure relating to the use of silicon in a recycling process.

The Doonan patent also relates primarily to the reclamation and recycling of plastics. That patent discloses the use of an aqueous solution in connection with washing the plastics. The aqueous solution may include various solvents, including silicon (*see, e.g.*, col. 7, line 43; col. 11, line 30).

However, the Doonan patent says nothing about the source of the silicon. Therefore, there is no disclosure or suggestion of obtaining such particles as a result of "machining a crystal ingot into a wafer or machining a semiconductor wafer" as recited in many of the pending claims.

The Doonan patent also explains that, after washing the plastics with the aqueous solution, fine solid waste and liquid solvent is separated from the cleaned plastics (see, e.g., col. 8, lines 33-41; col. 10, lines 12-14). The liquid solvent may be further processed so that the aqueous solvent is regenerated. However, that occurs after the liquid solvents have been separated from the fine solid waste and from the plastics. Thus, although the aqueous solvent (which may include silicon) may be regenerated for further use, the aqueous solvent is not solidified into a cake or recycled into an ingot as recited in the pending claims. Instead, the aqueous solvent is stored in a vessel 23 to which additional chemicals or solvent may be added (col. 9, lines 41-58).

According to the Doonan patent, the fine solid waste materials also may be sent to a recycling system (col. 9, lines 44-47). However, there is no disclosure in the Doonan patent as to what materials are in the fine solid waste; nor are there any details about how the fine solid waste is recycled.

Therefore, even if there some motivation (which there is not) to combine the disclosure of the Doonan patent with that of the Scherres patent, at most that would suggest using an aqueous solvent containing silicon as part of a washing process for recycling plastics. There would be absolutely no suggestion of the subject matter of the pending claims because, *inter alia*, the aqueous solvent (containing silicon) would be separated from the plastics after the washing. Therefore, even if a silicon-containing aqueous solvent were somehow used to clean the plastics in the Scheeres patent process, the resulting molten contaminated plastics in the Scheeres patent process would not include the silicon-containing aqueous solvent.

In view of the foregoing remarks, applicant respectfully submits that the pending claims are allowable over the Scherres and Doonan patents. A contrary conclusion would be precisely the type of improper hindsight that the Federal Circuit has warned against.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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